

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. - 23. (Cancelled)

24. (Currently Amended) A method of cooling an object comprising:

circulating a coolant past the object, wherein the coolant includes a first component and a second component dispersed in the first component in a state of being held by holding members, the second component changes phase in order to absorb a predetermined amount of heat;

setting a mixing ratio of the first component to the second component according to an amount of heat generated by the object; and

mixing the second component with the first component according to the mixing ratio.

25. (Original) The method according to claim 24, further comprising removing heat from at least the second component after the coolant has been circulated past the object, so as to maintain the coolant at a predetermined temperature.

26. (Previously Presented) The method according to claim 25, wherein the step of removing heat from the second component changes the phase of the second component.

27. (Original) The method according to claim 26, wherein the second component changes from a solid phase to a liquid phase in order to absorb the predetermined amount of heat, and the step of removing heat from the second component changes the second component back into the solid phase.

28. (Original) The method according to claim 26, wherein second component is the same substance as the first component, and is provided in a different phase than the first component after the step of removing heat from the second component is performed.

29. (Original) The method according to claim 26, wherein the second component is a different substance than the first component and is provided in a phase that is different from a phase of the first component after the step of removing heat from the second component is performed.

30. (Cancelled)

31. (Previously Presented) The method according to claim 24, wherein the second component absorbs the predetermined amount of heat without changing temperature.

32. (Original) The method according to claim 24, wherein the second component has a higher heat capacity than the first component.

33. - 34. (Cancelled)

35. (Original) The method according to claim 32, wherein the second component is a gel.

36. (Cancelled)

37. (Previously Presented) The method according to claim 24, wherein the holding members are hollow with the second component located therein.

38. (Previously Presented) The method according to claim 24, wherein the holding members contain grooves with the second component located in the grooves.

39. (Previously Presented) The method according to claim 24, wherein the holding members contain pores with the second component located in the pores.

40. (Currently Amended) The method according to claim 24, wherein the object to be cooled is a coil of a linear motor device having a housing with an internal space in which the coil is disposed, and a cooling system which cools the coil by circulating the coolant past the coil, the method further comprising:

~~mixing the second component with the first component; and~~

supplying the mixed coolant to the internal space of the housing using a pump.

41. (Cancelled)

42. (Original) The method according to claim 40, wherein the linear motor device is part of a stage device.

43. (Original) The method according to claim 42, wherein the stage device is part of an exposure apparatus provided with a mask stage for holding a mask and a substrate stage for supporting a substrate, wherein the stage device is used for at least one of the mask stage and the substrate stage.

44. - 79. (Cancelled)

80. (Currently Amended) A method of cooling an object comprising:
circulating a coolant past the object, wherein the coolant includes a first component and a second component dispersed in the first component in a state of being held by holding members, the second component has a higher heat capacity than the first component;

setting a mixing ratio of the first component to the second component
according to an amount of heat generated by the object; and
mixing the second component with the first component according to the
mixing ratio.

81. (Previously Presented) The method according to claim 80, further comprising removing heat from at least the second component after the coolant has been circulated past the object, so as to maintain the coolant at a predetermined temperature.

82. (Previously Presented) The method according to claim 80, wherein the second component is a gel.

83. (Previously Presented) The method according to claim 80, wherein the holding members are hollow with the second component located therein.

84. (Previously Presented) The method according to claim 80, wherein the holding members contain grooves with the second component located in the grooves.

85. (Previously Presented) The method according to claim 80, wherein the holding members contain pores with the second component located in the pores.

86. (Currently Amended) The method according to claim 80, wherein the object to be cooled is a coil of a linear motor device having a housing with an internal space in which the coil is disposed, and a cooling system which cools the coil by circulating the coolant past the coil, the method further comprising:

~~mixing the second component with the first component; and~~

supplying the mixed coolant to the internal space of the housing using a pump.

87. (Cancelled)

88. (Previously Presented) The method according to claim 86, wherein the linear motor device is part of a stage device.

89. (Previously Presented) The method according to claim 88, wherein the stage device is part of an exposure apparatus provided with a mask stage for holding a mask and a substrate stage for supporting a substrate, wherein the stage device is used for at least one of the mask stage and the substrate stage.

90. (Currently Amended) A method of cooling a coil of a linear motor device having a housing with an internal space in which the coil is disposed, the method comprising:

circulating a coolant past the coil, wherein the coolant includes a first component and a second component dispersed in the first component, the second component has a higher heat capacity than the first component;

setting a mixing ratio of the first component to the second component
according to an amount of heat generated by the coil;

mixing the second component with the first component according to the mixing ratio; and

supplying the mixed coolant to the internal space of the housing using a pump.

91. (Cancelled)

92. (Previously Presented) The method according to claim 90, wherein the linear motor device is part of a stage device.

93. (Previously Presented) The method according to claim 92, wherein the stage device is part of an exposure apparatus provided with a mask stage for holding a mask and a substrate stage for supporting a substrate, wherein the stage device is used for at least one of the mask stage and the substrate stage.

94. (Currently Amended) A method of cooling a coil of a linear motor device having a housing with an internal space in which the coil is disposed, the method comprising:

circulating a coolant past the coil, wherein the coolant includes a first component and a second component dispersed in the first component, the second component changes phase in order to absorb a predetermined amount of heat;

setting a mixing ratio of the first component to the second component according to an amount of heat generated by the coil;

mixing the second component with the first component according to the mixing ratio; and

supplying the mixed coolant to the internal space of the housing using a pump.

95. (Cancelled)

96. (Previously Presented) The method according to claim 94, wherein the linear motor device is part of a stage device.

97. (Previously Presented) The method according to claim 96, wherein the stage device is part of an exposure apparatus provided with a mask stage for holding a mask and a

substrate stage for supporting a substrate, wherein the stage device is used for at least one of the mask stage and the substrate stage.